

|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 09/916,040             | BEGED-DOV ET AL.    |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Monplaisir G Hamilton  | 2135                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 6/22/04.
2. ☒ The allowed claim(s) is/are 1,3-9,11-17 and 19-22.
3. ☒ The drawings filed on 25 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

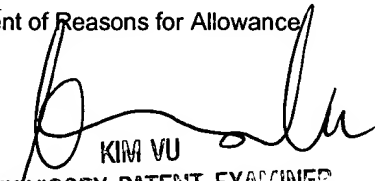
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) *                                       | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20041108</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____  |

  
 KIM VU  
 PATENT EXAMINER  
 TECHNOLOGY CENTER 2100

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael J. D'Aurelio on 11/9/04.

The application has been amended as follows:

1. (Currently Amended) A method for parsing a markup file, comprising:  
parsing a first portion of the markup file with a lightweight parser in a computer system, the lightweight parser being capable of performing a first set of parsing tasks;  
parsing a second portion of the markup file with a heavyweight parser in the computer system, the heavyweight parser being capable of performing a second set of parsing tasks, wherein the first set of parsing tasks is a subset of the second set of parsing tasks; and  
detecting an occurrence of a transition event, the transition event comprising a requirement that the lightweight parser perform a parsing task excluded from the first set of parsing tasks; and

transitioning between the parsing of the first portion of the markup file with the lightweight parser to the parsing of the second portion of the markup file with the heavyweight parser upon the ~~an~~ the occurrence of the ~~a~~ transition event.

2. (Canceled)
3. (Original) The method of claim 1, wherein the step of parsing a first portion of the markup file with a lightweight parser further comprises establishing a channel applying the first portion of the markup file to the lightweight parser and directing a number of events generated by the lightweight parser to an application.
4. (Original) The method of claim 1, wherein the step of parsing a second portion of the markup file with a heavyweight parser further comprises establishing a channel to apply the second portion of the markup file to the heavyweight parser and to direct events generated by the heavyweight parser to an application.
5. (Original) The method of claim 1, further comprising maintaining an events stack in the computer system, the events stack having a number of open events from the lightweight parser.
6. (Original) The method of claim 5, wherein the step of maintaining an events stack in the computer system, further comprising:

storing a number of open events from the lightweight parser in the events stack;  
matching a closing event with one of the opening events in the events stack; and  
deleting the opening event matching the closing event from the event stack.

7. (Original) The method of claim 5, wherein the step of transitioning between the parsing of the first portion of the markup file with the lightweight parser to the parsing of the second portion of the markup file with the heavyweight parser further comprises:  
generating a priming file from the events stored in the events stack; and  
applying the priming file to the heavyweight parser.
8. (Original) The method of claim 7, wherein the step of transitioning between the parsing of the first portion of the markup file with the lightweight parser to the parsing of the second portion of the markup file with the heavyweight parser further comprises discarding a number of priming events generated by the heavyweight parser upon the application of the priming file thereto.
9. (Currently Amended) A program embodied in a computer readable medium employed to parse a markup file, comprising:  
a lightweight parser that performs a first set of parsing tasks to parse the markup file;

a heavyweight parser that performs a second set of parsing tasks to parse the markup file, wherein the first set of parsing tasks is a subset of the second set of parsing tasks; and

code that transitions a parsing of the markup file from the lightweight parser to the heavyweight parser upon an occurrence of a transition event, wherein the transition event further comprises a requirement that the lightweight parser perform a parsing task excluded from the first set of parsing tasks.

10. (Canceled)
11. (Original) The program embodied in the computer readable medium of claim 9, further comprising code that establishes a channel that applies the first portion of the markup file to the lightweight parser and that directs a number of events generated by the lightweight parser to an application.
12. (Original) The program embodied in the computer readable medium of claim 9, further comprising code that establishes a channel applies the second portion of the markup file to the heavyweight parser and that directs events generated by the heavyweight parser to an application.

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13. (Original) The program embodied in the computer readable medium of claim 9, further comprising code that maintains an events stack in a memory, wherein a number of open events from the lightweight parser are stored in the events stack.
14. (Original) The program embodied in the computer readable medium of claim 13, wherein the code that maintains the events stack in the memory, further comprises:
  - code that stores a number of open events from the lightweight parser in the events stack;
  - code that matches a closing event with one of the opening events in the events stack; and
  - code that deletes the opening event matching the closing event from the event stack.
15. (Original) The program embodied in the computer readable medium of claim 13, wherein the code that transitions the parsing of the markup file from the lightweight parser to the heavyweight parser further comprises:
  - code that generates a priming file from the events stored in the events stack; and
  - code that applies the priming file to the heavyweight parser.
16. (Original) The program embodied in the computer readable medium of claim 15, wherein the code that transitions the parsing of the markup file from the

lightweight parser to the heavyweight parser further comprises code that discards a number of priming events generated by the heavyweight parser upon the application of the priming file thereto.

17. (Currently Amended) A system for parsing a markup file, comprising:  
first means for parsing the markup file employing a first set of parsing tasks;  
second means for parsing the markup file employing a second set of parsing tasks,  
wherein the first set of parsing tasks is a subset of the second set of parsing tasks;  
and means for transitioning a parsing of the markup file from the first means to the second means upon an occurrence of a transition event, wherein the transition event further comprises a requirement that the first means perform a parsing task excluded from the first set of parsing tasks.
18. (Canceled)
19. (Original) The system of claim 17, further comprising means for establishing a channel applying the first portion of the markup file to the lightweight parser and directing a number of events generated by the lightweight parser to an application.
20. (Original) The system of claim 17, further comprising means for establishing a channel applying the second portion of the markup file to the heavyweight parser and directing events generated by the heavyweight parser to an application.

21. (Original) A method for parsing a markup file, comprising:
- parsing the markup file with a lightweight parser in a computer system, the lightweight parser being capable of performing a first set of parsing tasks;
- maintaining an events stack in the computer system by storing a number of open events generated by the lightweight parser in the events stack and deleting select ones of the open events previously stored in the events stack that match corresponding ones of a number of closing events generated by the lightweight parser;
- detecting an occurrence of a transition event in the computer system, the transition event comprising a requirement that the lightweight parser perform a parsing task excluded from the first set of parsing tasks; and
- transitioning from the parsing of the markup file with the lightweight parser to parsing the markup file with the heavyweight parser in the computer system upon an occurrence of the transition event by:
- ceasing an application of the markup file to the lightweight parser;
- generating a priming file from the current ones of the events stored in the events stack and applying the priming file to the heavyweight parser; and
- discarding a number of priming events generated by the heavyweight parser upon the application of the priming file thereto; and
- parsing a remaining portion of the markup file with the heavyweight parser after the application of the priming file, the heavyweight parser being capable of



performing a second set of parsing tasks, wherein the first set of parsing tasks is a subset of the second set of parsing tasks.

22. (Original) A system for parsing a markup file, comprising:
- a processor circuit having a processor and a memory;
  - a hybrid parser stored in the memory and executable by the processor, the hybrid parser comprising:
    - a lightweight parser that performs a first set of parsing tasks to parse the markup file;
    - a heavyweight parser that performs a second set of parsing tasks to parse the markup file, wherein the first set of parsing tasks is a subset of the second set of parsing tasks;
    - an events stack stored in the memory;
      - logic that maintains the events stack by storing a number of open events generated by the lightweight parser in the events stack and deleting select ones of the open events previously stored in the events stack that match corresponding ones of a number of closing events generated by the lightweight parser; and
    - logic that transitions a parsing of the markup file from the lightweight parser to the heavyweight parser upon an occurrence of a transition event comprising:
      - logic that ceases applying the markup file to the lightweight parser;

logic that generates a priming file from the current ones of the events stored in the events stack and applies the priming file to the heavyweight parser;

logic that discards a number of priming events generated by the heavyweight parser upon the application of the priming file thereto; and

logic that applies a remaining portion of the markup file to the heavyweight parser after the application of the priming file.

***Reasons for Allowance***

2. Claims 1, 3-9, 11-17, 19-22 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not fairly teach or suggest the limitations of independent Claims 1, 9, 17 and 21-22.

Dependent Claims 3-8, 11-16 and 19-20 are allowable by virtue of their dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

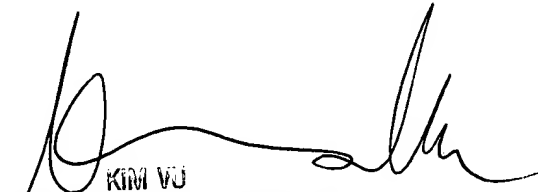
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monplaisir G Hamilton whose telephone number is (571) 272-3852. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monplaisir Hamilton

  
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